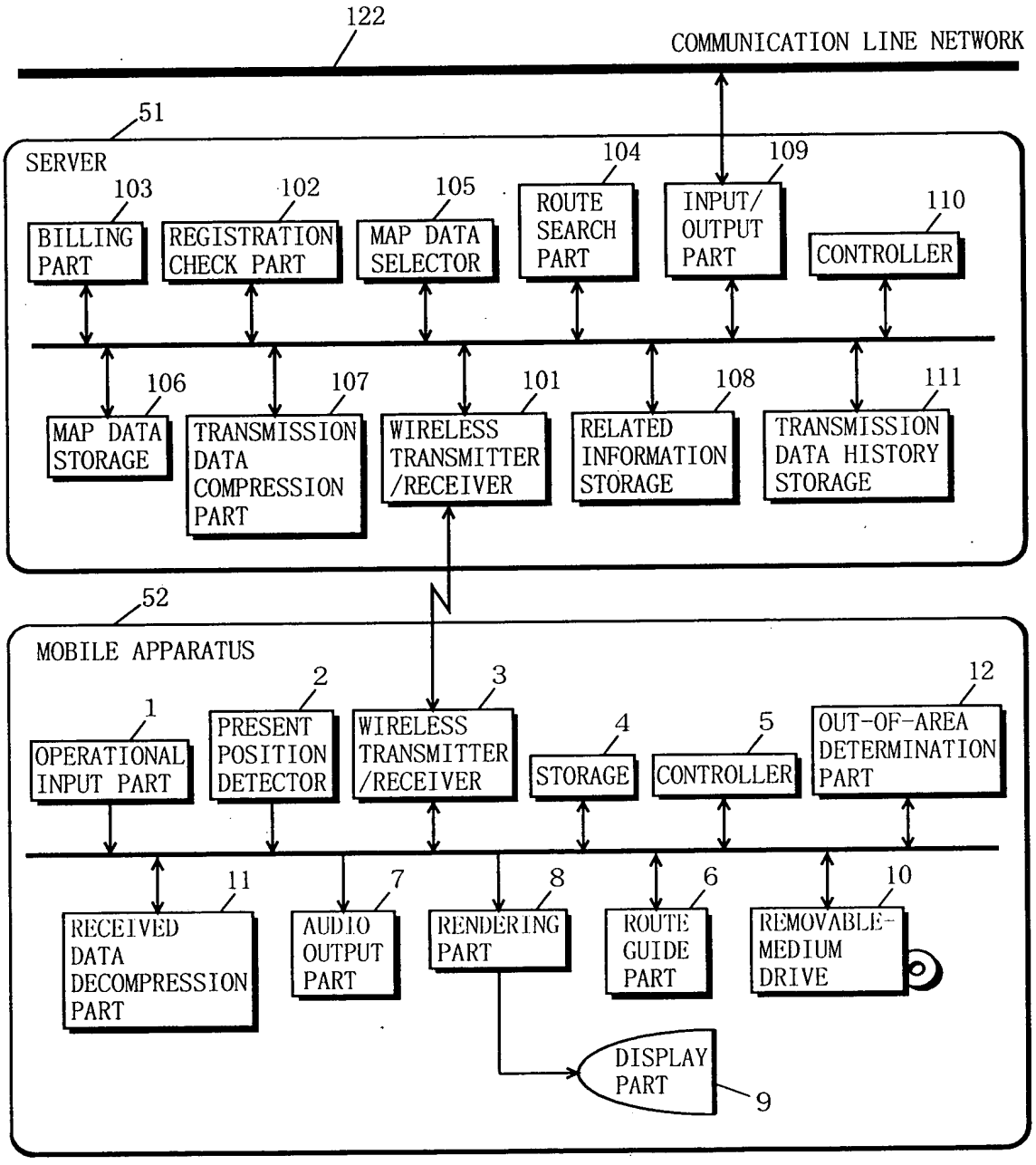
OIPE JC177
JUN 24 2004
PATENT & TRADEMARK OFFICE

FIG. 1



OIPE JC177
JUN 24 2004
PATENT & TRADEMARK OFFICE

FIG. 2A

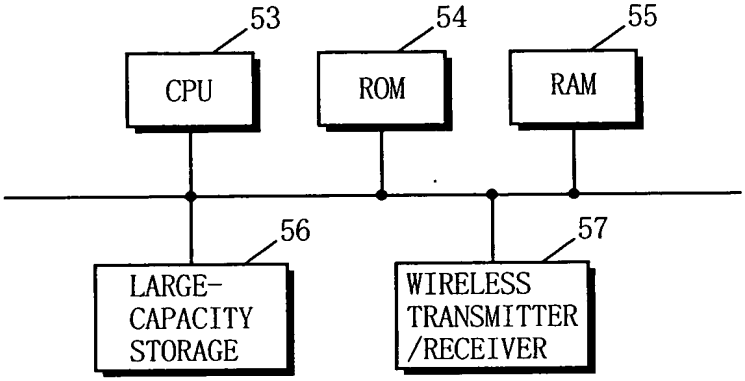
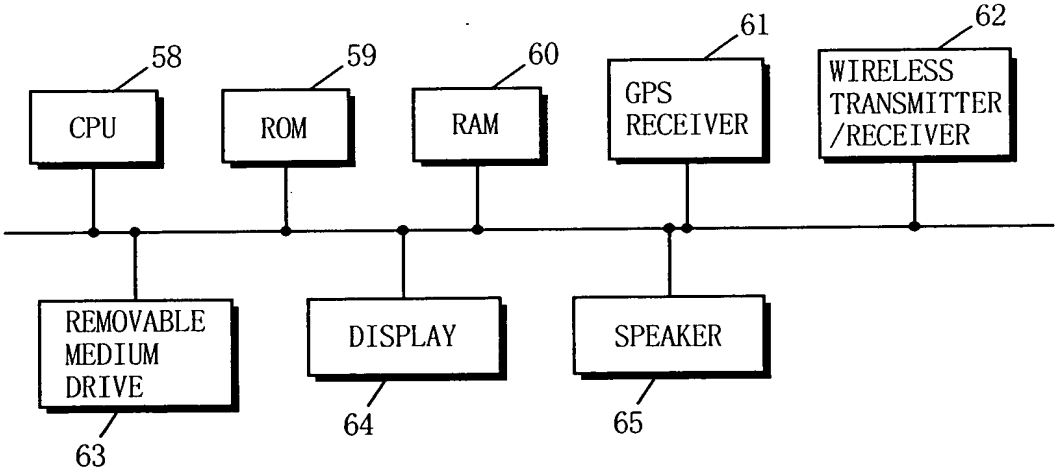


FIG. 2B



OIPE SC17
JUN 24 2004
PATENT & TRADEMARK OFFICE

FIG. 3A

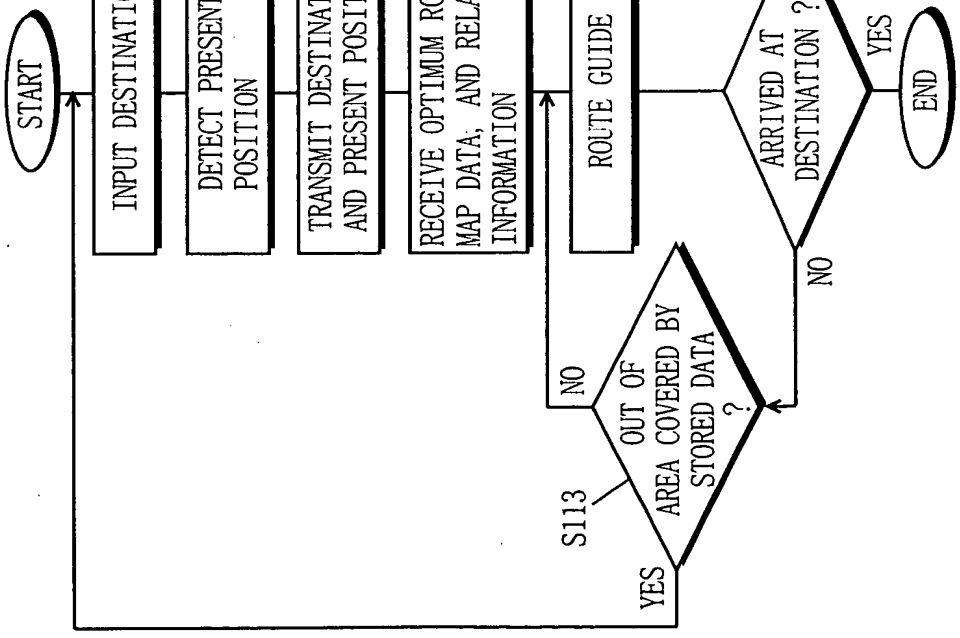
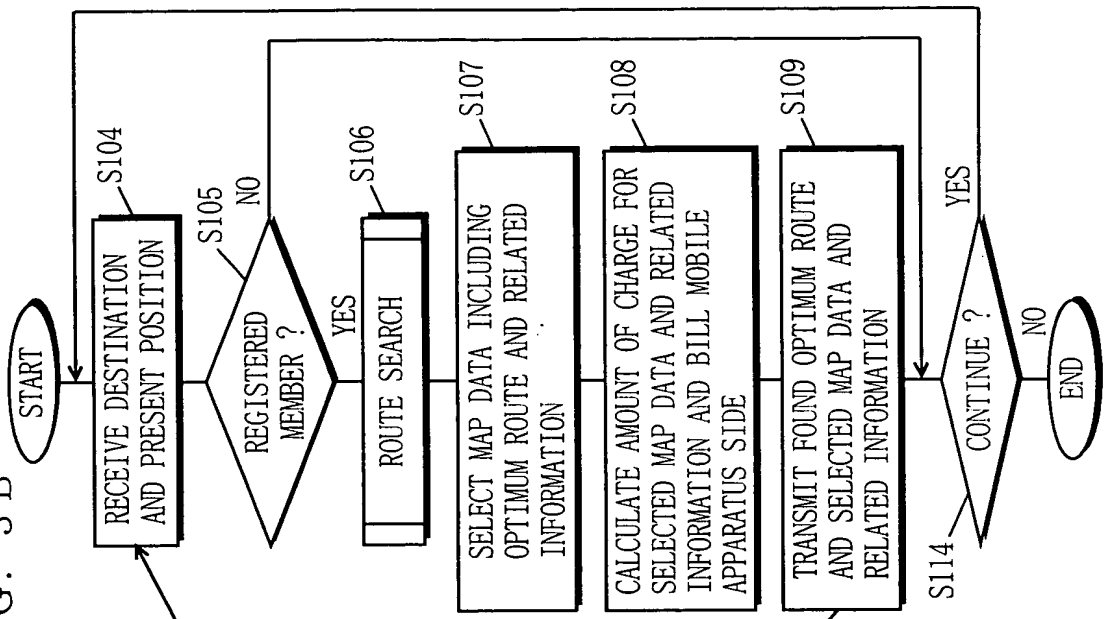


FIG. 3B



OIPE JC177
JUN 24 2004
PATENT & TRADEMARK OFFICE

FIG. 4

REGISTRATION IDENTIFIER	PRESENT POSITION OR STARTING POINT	DESTINATION	OPTIMUM-ROUTE SEARCH METHOD IDENTIFIER	RELATED INFORMATION REQUIREMENT IDENTIFIER

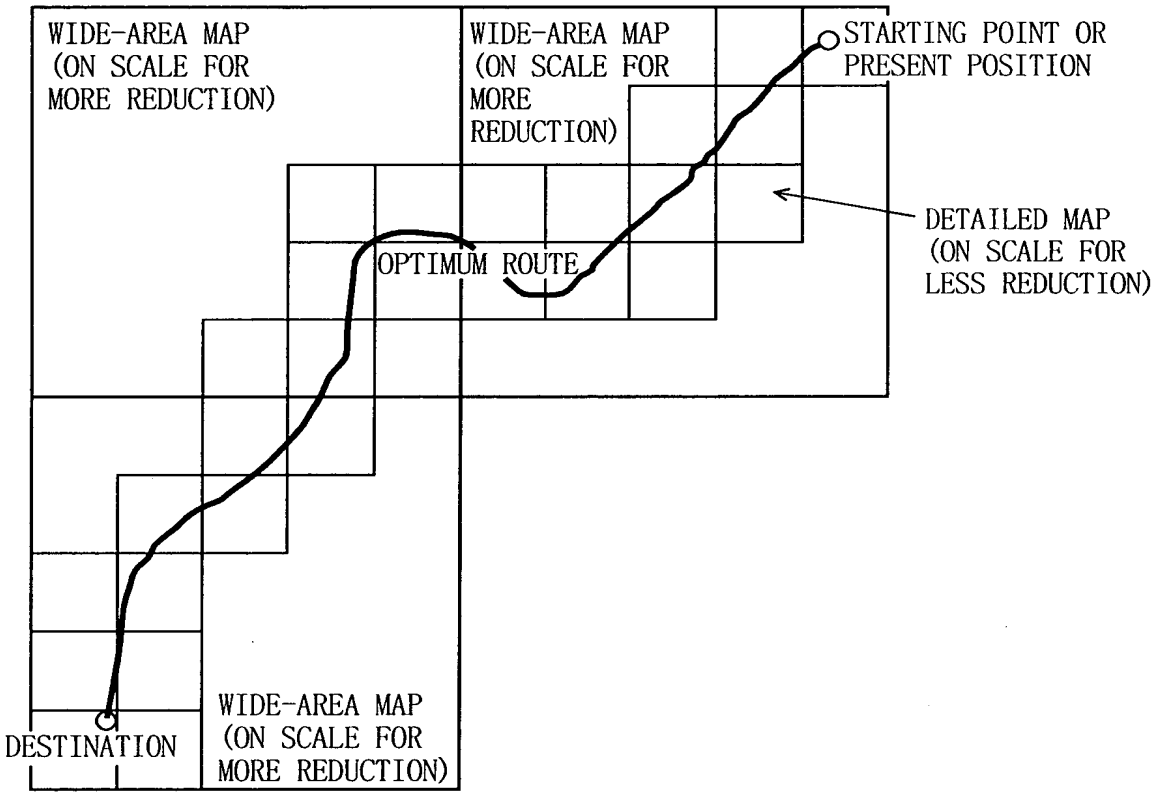
OIPE JC177
JUN 2 4 2004
PATENT & TRADEMARK OFFICE

FIG. 5

REGISTRATION IDENTIFIER	REGISTERED DATA TYPE	DATA AMOUNT	CHARGE AMOUNT	FREQUENCY OF LOG-IN	TOTAL DATA AMOUNT	TOTAL BILLING AMOUNT

OIPE JC177
JUN 2 4 2004
PATENT & TRADEMARK OFFICE

FIG. 6



PATENT & TRADEMARK OFFICE
JUN 2 4 2004
OIPE
JC177

FIG. 7A

INFORMATION TYPE		UNIT PRICE
MAP DATA		10 YEN/SHEET
RELATED INFORMATION	TRAFFIC JAM	50 YEN/AREA
	EVENT/ DISCOUNT SALE	20 YEN/AREA
	SIGHTSEEING INFORMATION	10 YEN/AREA

FIG. 7B

INFORMATION TYPE		UNIT PRICE
MAP DATA		10 YEN/1MB
RELATED INFORMATION	TRAFFIC JAM	50 YEN/1KB
	EVENT/ DISCOUNT SALE	20 YEN/1KB
	SIGHTSEEING INFORMATION	10 YEN/1KB

"REPLACEMENT SHEET"

PATENT & TRADEMARK OFFICE JUN 24 2004 OIPE JC177

FIG. 8A

INFORMATION TYPE		THE NUMBER OF SHEETS OR AREAS	PRICE
MAP DATA		2	20 YEN
RELATED INFORMATION	TRAFFIC JAM	2	100 YEN
	EVENT/ DISCOUNT SALE	—	—
	SIGHTSEEING INFORMATION	2	20 YEN
TOTAL CHARGE		140 YEN	

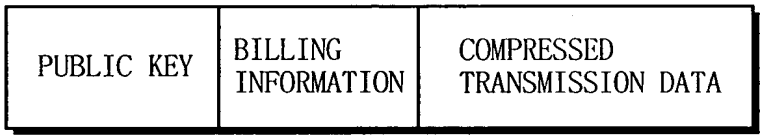
FIG. 8B

INFORMATION TYPE		INFORMATION AMOUNT	PRICE
MAP DATA		2MB	20 YEN
RELATED INFORMATION	TRAFFIC JAM	1.5KB	75 YEN
	EVENT/ DISCOUNT SALE	—	—
	SIGHTSEEING INFORMATION	3KB	30 YEN
TOTAL CHARGE		125 YEN	

"REPLACEMENT SHEET"

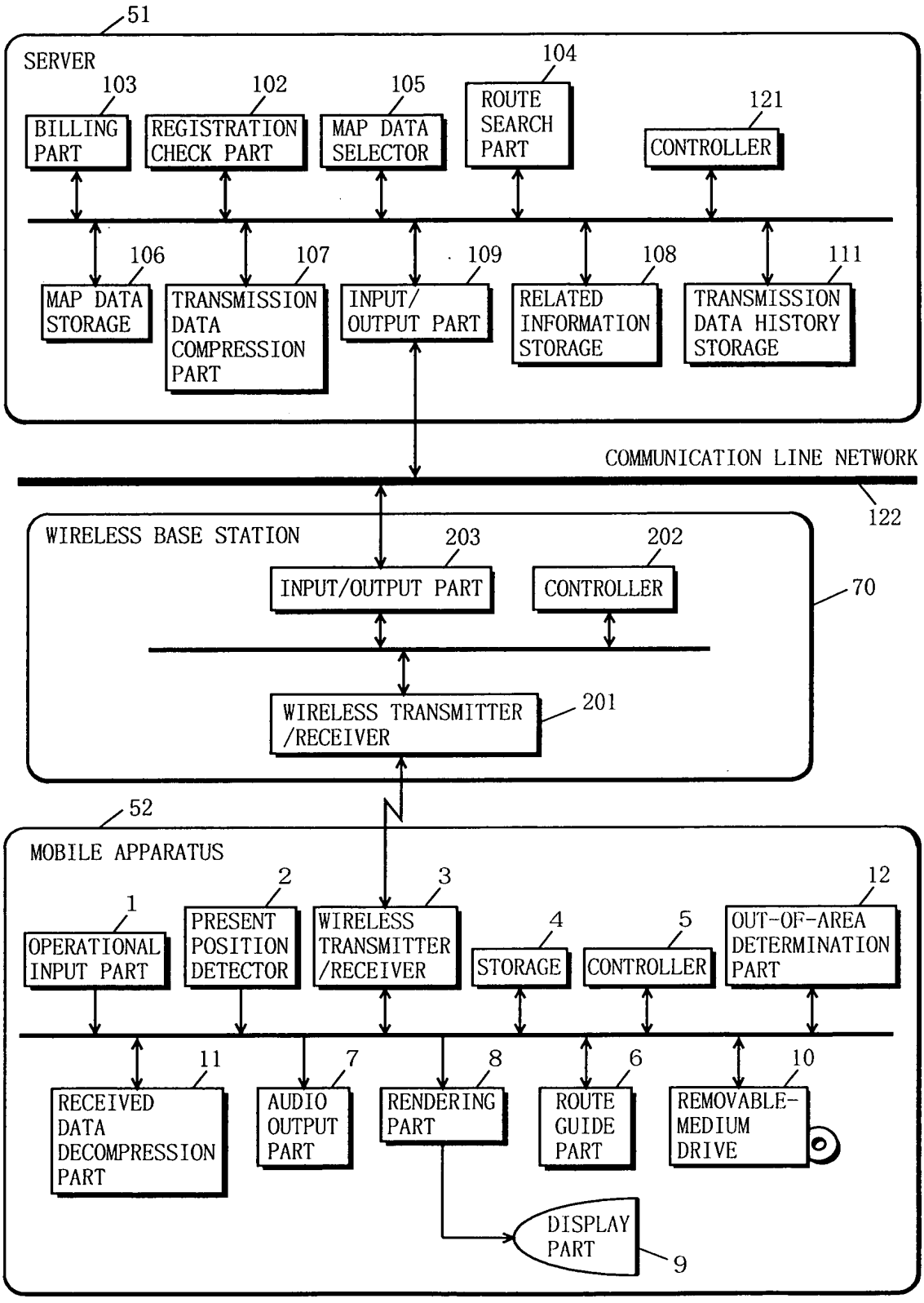
OIPE JC177
JUN 2 4 2004
PATENT & TRADEMARK OFFICE

FIG. 9



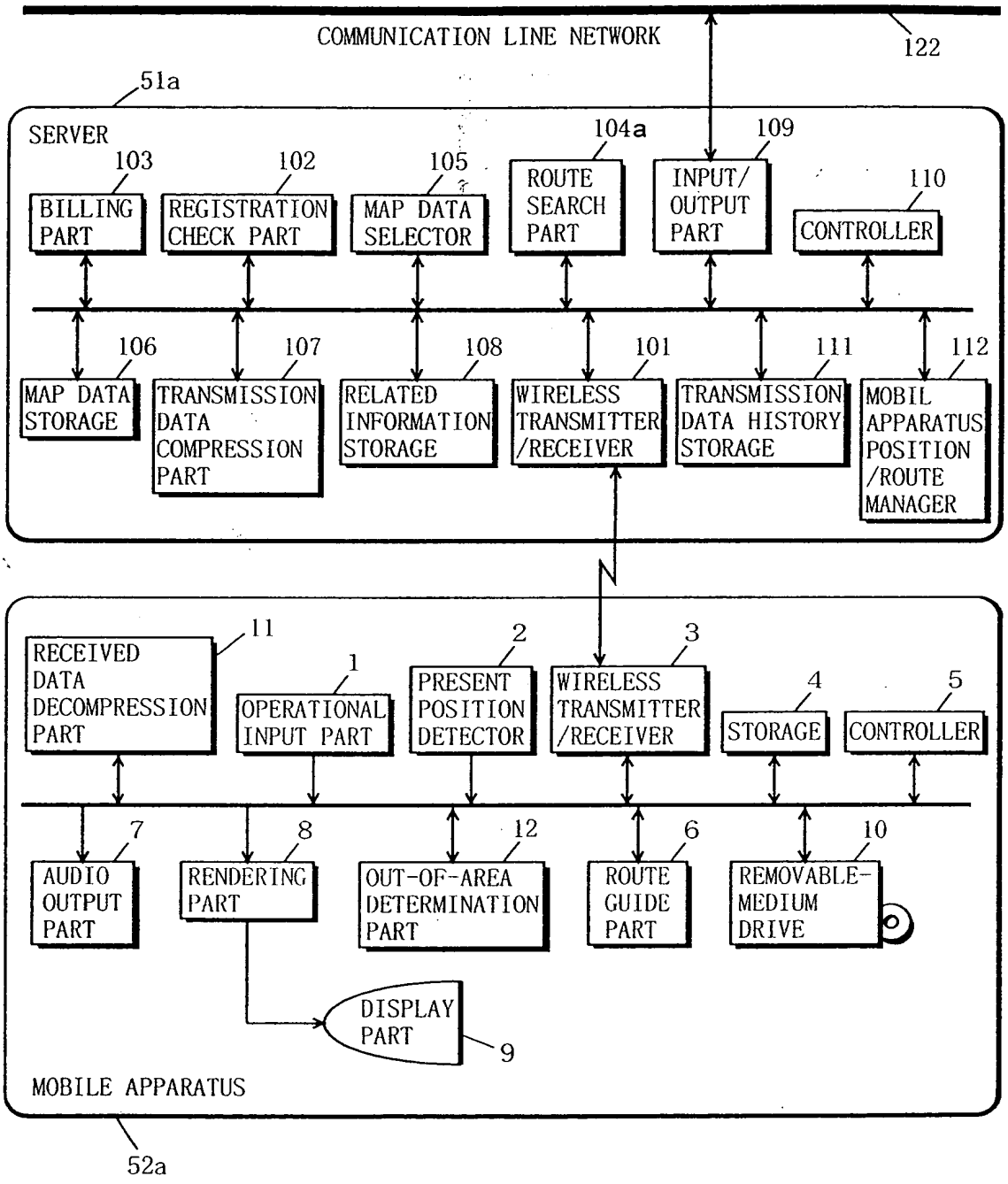
OIPE JC177 JUN 2 4 2004 PATENT & TRADEMARK OFFICE

FIG. 10



OIPE SC177
JUN 2 4 2004
PATENT & TRADEMARK OFFICE

FIG. 11



OIPE SC17
JUN 24 2004
PATENT & TRADEMARK OFFICE

FIG. 12A

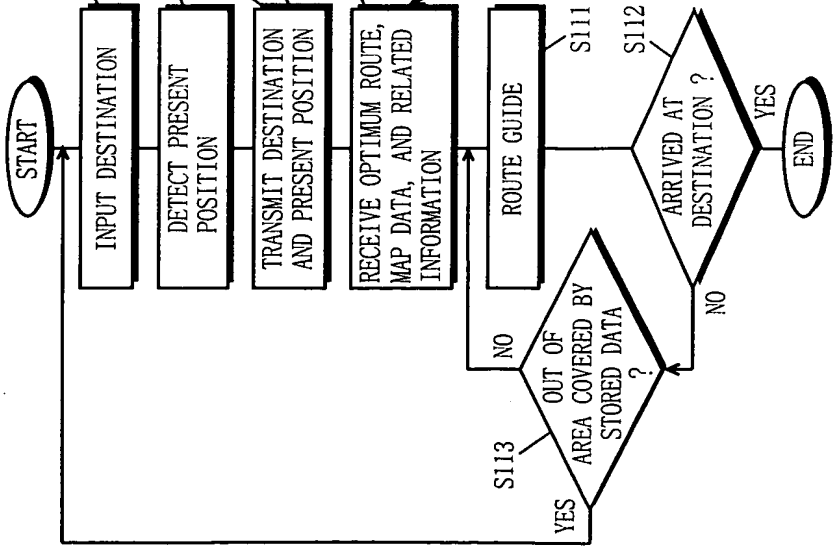


FIG. 12B

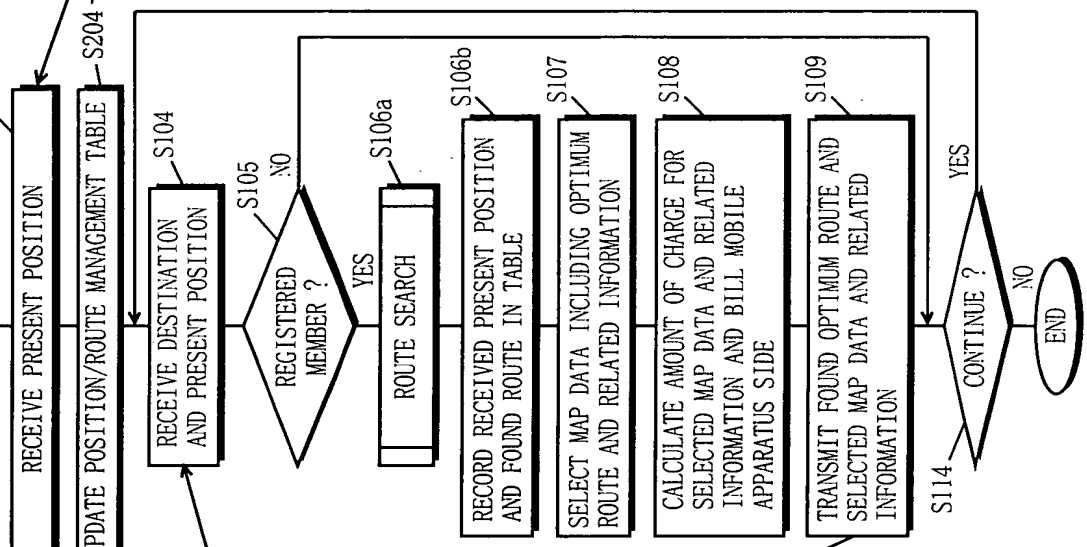
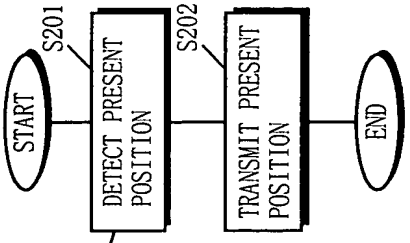


FIG. 12C



OIPE JC177
JUN 24 2004
PATENT & TRADEMARK OFFICE

FIG. 13

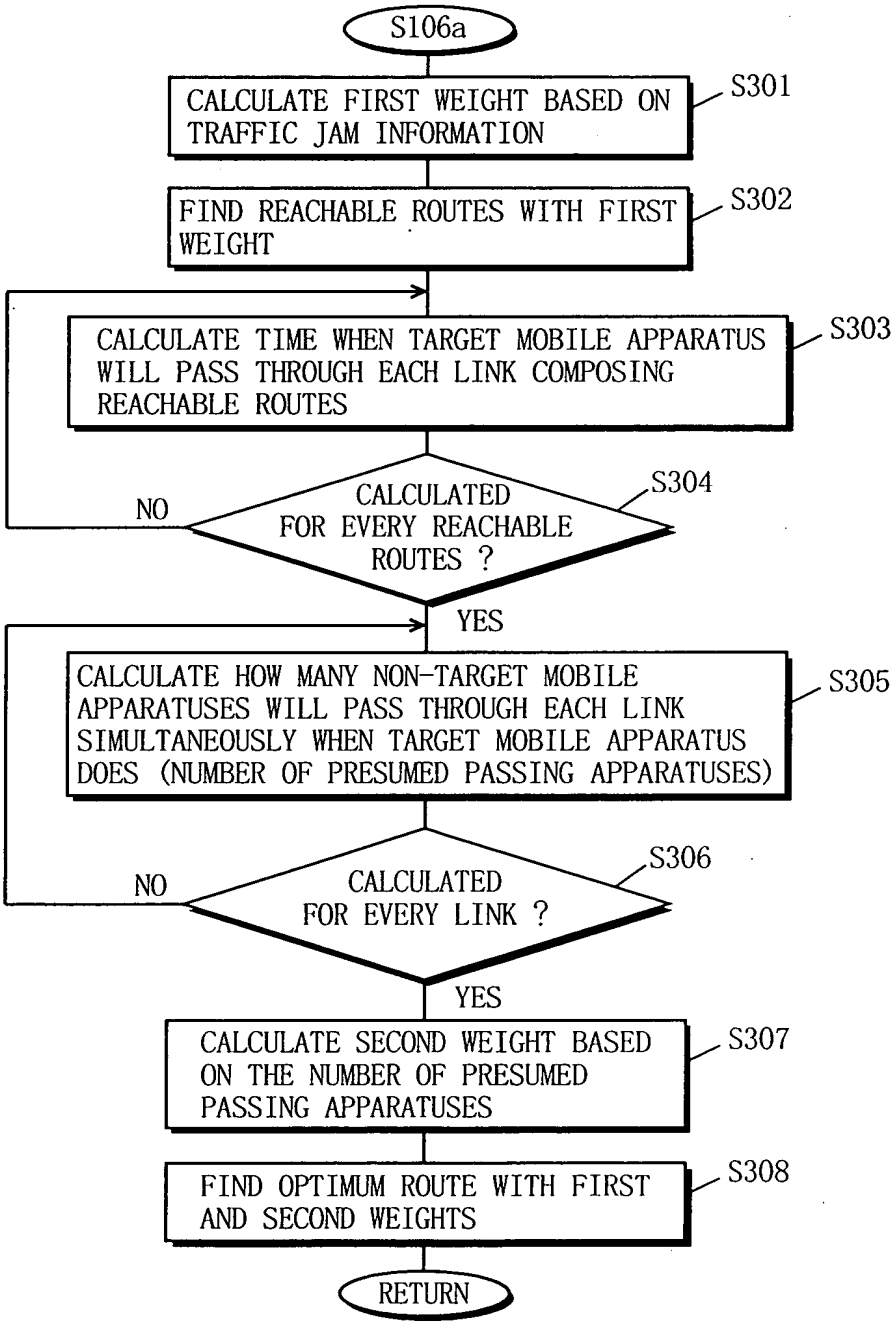
PUBLIC KEY	COMPRESSED TRANSMISSION DATA

FIG. 14

	PRESENT POSITION	FOUND ROUTE
MOBILE APPARATUS 1		
MOBILE APPARATUS 2		
⋮		

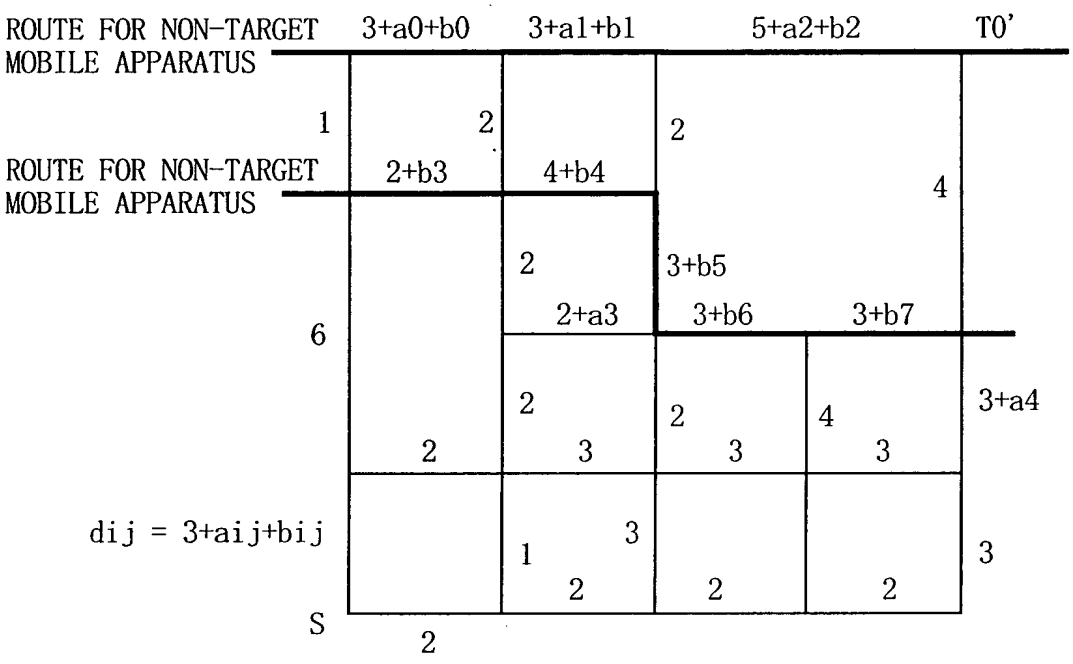
OIPE JC177 JUN. 2 4 2004 PATENT & TRADEMARK OFFICE

FIG. 15



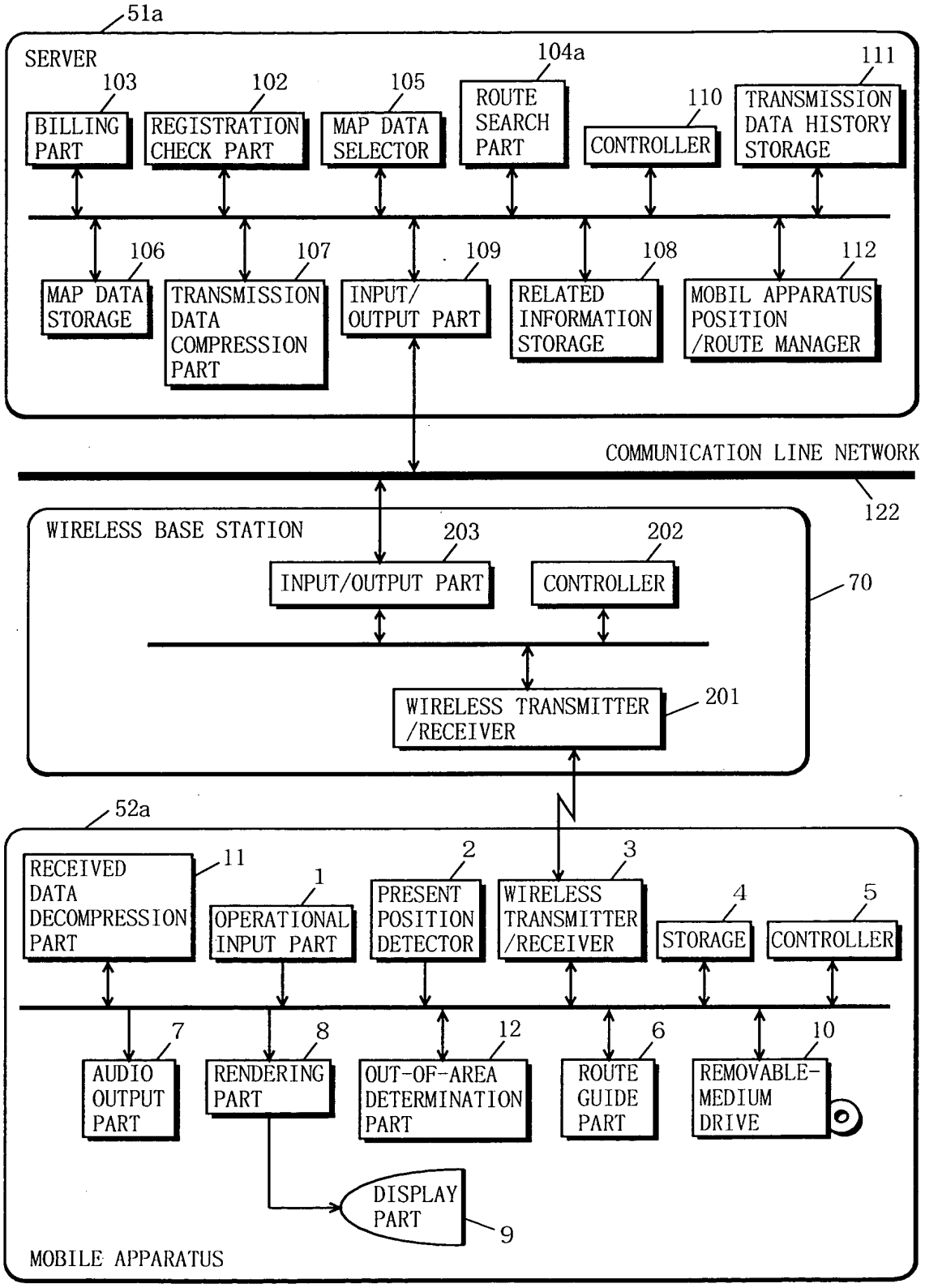
OIPE JC177 JUN 24 2004 PATENT & TRADEMARK OFFICE

FIG. 16



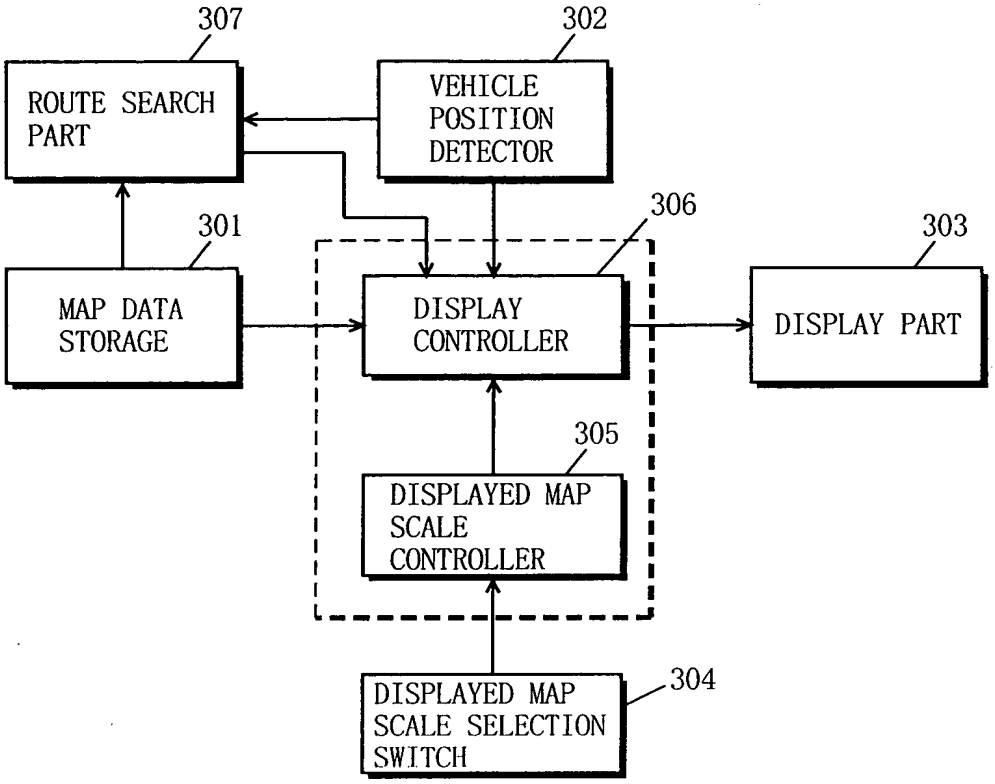
OIPE JC177 JUN.24 2004 PATENT & TRADEMARK OFFICE

FIG. 17



OIPE JC177 JUN 24 2004 PATENT & TRADEMARK OFFICE

FIG. 18 PRIOR ART



OIPE JC177 JUN 24 2004 PATENT & TRADEMARK OFFICE

FIG. 19 PRIOR ART

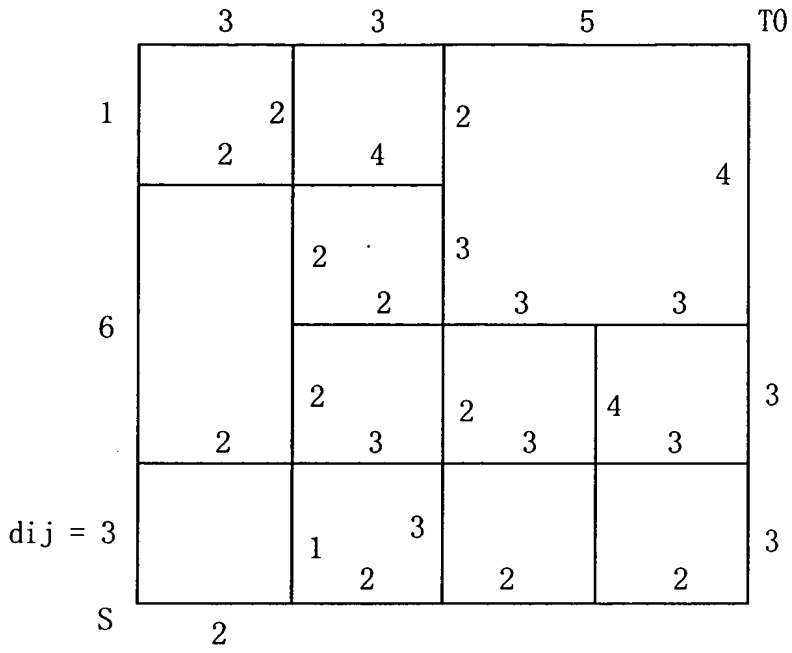
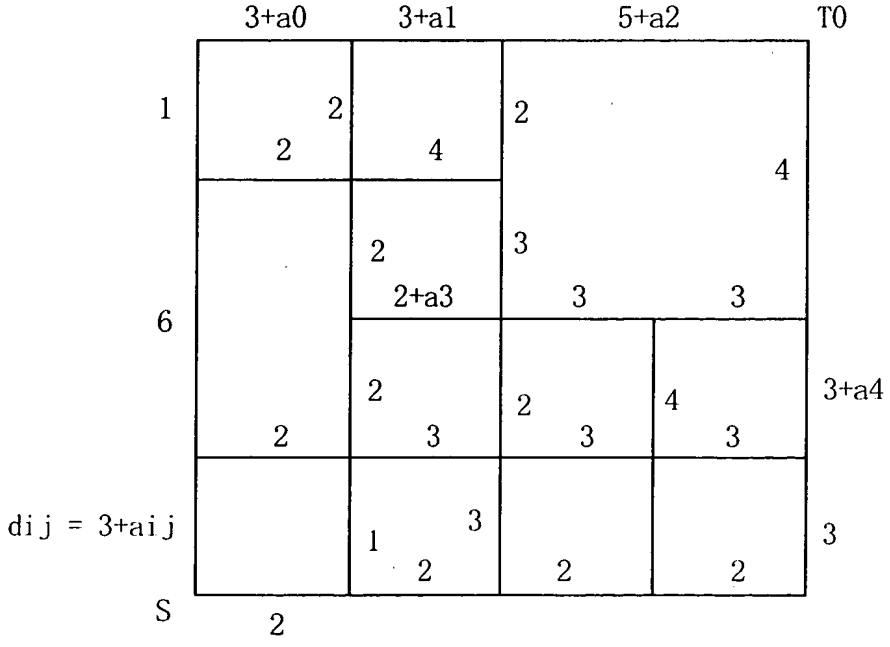



FIG. 20 PRIOR ART